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10/728,963	12/08/2003	Takehiro Niitsu	118009	9040
25944	7590	04/05/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			DOAN, JENNIFER	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8/

# Office Action Summary

Application No.

10/728,963

Applicant(s)

NIITSU ET AL.

Examiner

Jennifer Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-13 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The amendment, filed on September 14, 2005, has been considered and entered.

Claims 1-16 are now pending.

Claims 1 and 13 are amended. The previous ground of rejection is now changed in this Office Action in response to the amendment of claims 1 and 13. Since the new ground of rejection is necessitated by the amendment, this office action is made final.

### ***Specification***

1. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Ozeki et al. (U.S. 2004/0057731 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claims 1 and 13, Ozeki et al. (figure 7) disclose a method and an apparatus of an optical wiring board (91) comprising a support board (92); and an optical component including an optical waveguide (93), which has a plate shape (see figure 7) and has at least two end faces (93a, 93b); and an optical fiber (96) connected to at least one of the end faces (93b) of the optical waveguide (93) optically, wherein the optical component is placed on the support board (92); and the top surface of the optical waveguide and the optical fiber is sealed by resin (see paragraph [0076], lines 13-16).

With respect to claim 2, Ozeki et al. (figure 7) disclose an optical wiring board, wherein the optical fiber includes a first optical fiber (95) and a second optical fiber (96); the first optical fiber (95) is connected to the one of the end faces (93a) of the optical waveguide (93); and the second optical fiber (96) is connected to the other of the end faces (93b) of the optical waveguide (93).

With respect to claim 3, Ozeki et al. (figure 7) disclose an optical wiring board, wherein the optical fiber (96) is a plurality of optical fibers (see figure 7), which are connected to the one of the end faces (93b) of the optical waveguide (93) optically; and an optical signal is input to and output from the optical waveguide (93) through the optical fibers (95 and 96).

With respect to claim 4, Ozeki et al. (figure 7) disclose an optical wiring board, wherein the optical component further includes a light diffusion member (94) having a diffusion portion (94a) for diffusing light; and the light diffusion member (94) is disposed at one of a position between the one of the end faces (93a) of the optical waveguide and the optical fiber (95); and a position of the other of the end faces of the optical waveguide.

With respect to claim 8, Ozeki et al. disclose an optical wiring board, wherein the resin is selected in accordance with difference in thermal expansion coefficient between the support board and the optical component (see paragraph [0071]).

With respect to claim 9, Ozeki et al. disclose an optical wiring board, wherein a refractive index of the resin is smaller than at least one of that of the optical waveguide and that of a core material of the optical fiber (see paragraph [0029]).

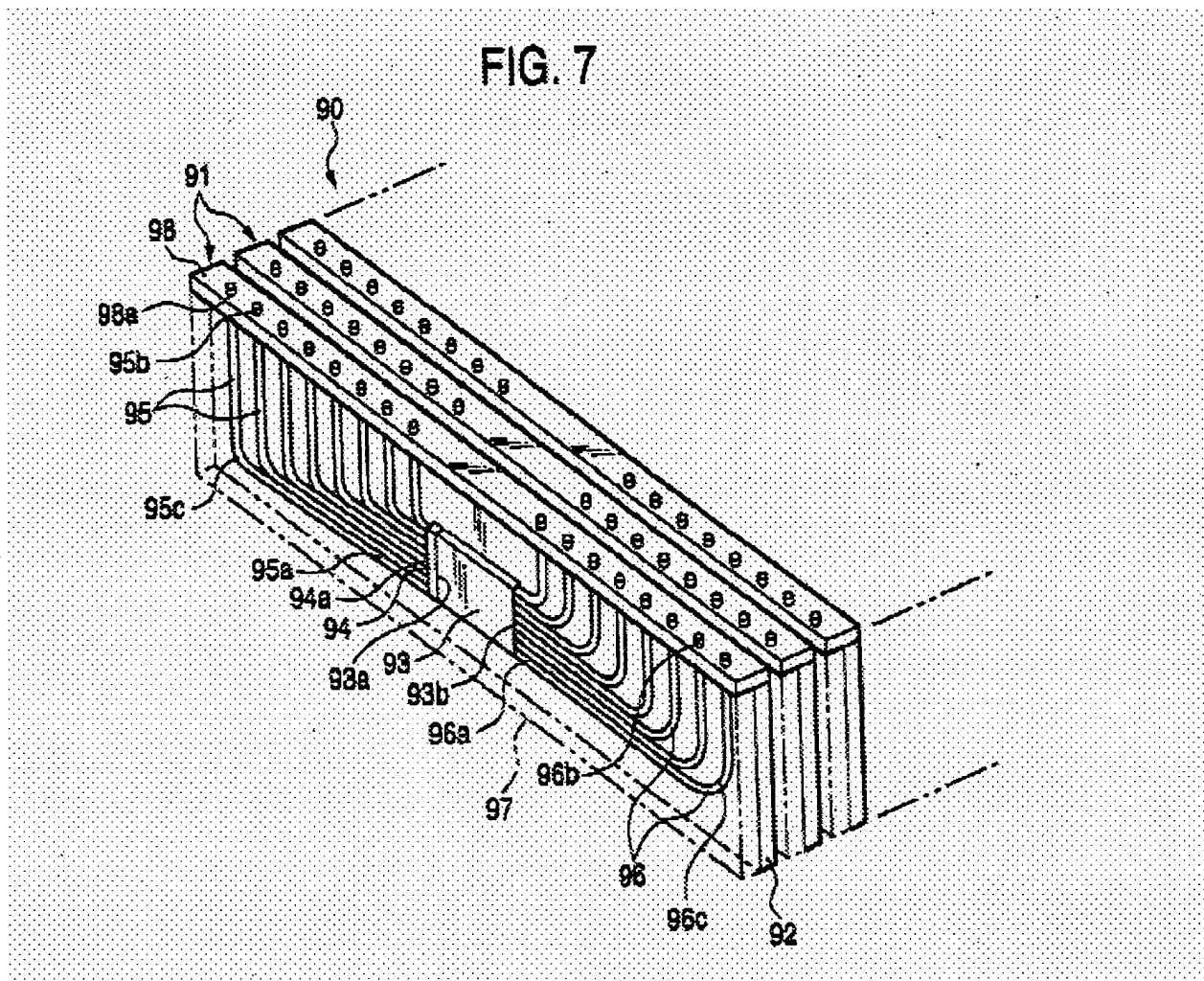
With respect to claim 10, Ozeki et al. disclose an optical wiring board, wherein the support board has flexibility (see paragraph [0077]).

With respect to claim 11, Ozeki et al. (figure 7) disclose an optical wiring board (91) comprising a support board (92); and an optical component including an optical waveguide (93), which has a plate shape (see figure 7) and has at least two end faces

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(93a, 93b); and an optical fiber (96) connected to at least one of the end faces (93b) of the optical waveguide (93) optically; and a positioning member (98) for positioning the other end face (96b) of the optical fiber (96), the positioning member (98) having a through hole (98a) which the other end face (96b) of the optical fiber (96) passes through, wherein the optical component is placed on the support board (92); and the optical component is sealed by resin (see paragraph [0076], lines 13-16).

With respect to claim 12, Ozeki et al. (figure 7) disclose an optical bus system comprising a conversion circuit section for converting an electric signal into an optical signal and converting the optical signal into the electric signal; and an optical wiring board (91) for transmitting and receiving the optical signal to and from the conversion circuit section, wherein the optical wiring board (91) includes a support board (92); and an optical component including an optical waveguide (93), which has a plate shape (see figure 7) and has at least two end faces (93a and 93b); and an optical fiber (96) connected to at least one of the end faces (93b) of the optical waveguide (93) optically, wherein the optical component is placed on the support board (92); and the optical component is sealed by resin (see paragraph [0076], lines 13-16).



***Allowable Subject Matter***

4. Claims 5-7 and 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose or reasonably suggest the optical wiring board, wherein the optical component includes a inflow prevention member for preventing the resin from flowing into the diffusion portion of the light diffusion member as recited in claim 5; the method, wherein the temporarily securing is conducted using one of adhesive and a tape and the sealing is conducted over the one of the adhesive and the tape; wherein the adhesive has a refractive index equal to those of the optical fiber and the optical waveguide and particles having different refractive index from each other are dispersed in the light diffusion member as recited in claims 14-16.

### ***Response to Arguments***

5. Applicants' argument filed on September 14, 2005 has been fully considered.

6. With respect to claims 1-16:

The examiner respectfully submits that a new ground of rejection based on Ozeki et al. (U.S. 2004/0057731 A1) has been applied to claims 1-4 and 8-13 in response to the amendment of the claims. Please refer to claim rejections 35 U.S.C. 102 above.

Claims 5-7 and 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



**Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kurosawa et al. (J.P. 10307229) disclose the sealing of connection section of an optical ribbon fiber and an optical waveguide.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

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10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JD

March 31, 2006



**JENNIFER DOAN**  
**PRIMARY EXAMINER**